

CLAIMS

What is claimed is:

1. A cooling and molding water tank for extrusion of a plastic complicated profile, comprising a tank body including a front end block, a rear end block, a top cover, two side plates, a bottom plate and a plurality of foot plates which are in bolted or hinged joint, wherein an inlet pipe is provided on the side plate of the water tank near the front end block, an outlet pipe is provided on the side plate of the water tank near the rear end block, and a vacuum valve and a vacuum gauge are provided on the top cover of the water tank, characterized in that a plurality of molding blocks and water collection plates which are provided along the length direction inside the tank body, said molding blocks and water collection plates being spaced from each other, and the intervals therebetween becoming wider from the front end to the rear end.

2. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 1, wherein said molding blocks and water collection plates are inserted into a receptacle at the internal side of the side plates of the water tank, which have a limited freedom of motion in the longitudinal, transverse and vertical directions.

3. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 1, wherein the number of said molding blocks is 5-30.

4. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 1, wherein the number of said water collection plates is 3-28.

5. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 1, wherein U-shape water passage slots are provided on the four peripheral sides of said molding blocks.

6. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 5, wherein the width of said U-shape water passage slots is 0.2-0.8 of the side length of the molding block, the depth of which is ranged 2-15 mm according to the size of the molding blocks.

7. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 1, wherein an adjusting mechanism provided on the long side of the profile cavity passage of said

molding blocks, said adjusting mechanism including a through kurf which is parallel to and 1-8 mm from the plane of the long side of the profile cavity passage, and at least one through screw hole which is provided on and perpendicular to the plane of the long side, and intersects with the lower side of the kurf, wherein an adjusting screw is engaged with the screw hole and the top of the adjusting screw may extend against the upper side of said kurf.

8. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 7, wherein

the width of said kurf is 0.1-2.0 mm, and the length of said kurf is equal to that of the long side of the profile cavity passage, or a little longer or shorter.

9. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 1, wherein

the shape of an internal cavity of said water collection plate is the shape of an outwardly expanded section of a plastic complicated profile which expands 0.5-8 mm in the radial direction, and the shape of some parts of the internal cavity where are overlapped, adjacent, or complicated can be simplified.

10. A cooling and molding water tank for extrusion of a plastic complicated profile of claim 1, wherein

said water collection plates can be made of stainless steel, alloy aluminum, organic glass, or other stainless and corrosion resistant materials.